

EXHIBIT 1

Stacey L. Hail, MD, FACMT
Board Certified in Emergency Medicine and Medical Toxicology

RE: *Cynthia Lakey and Douglas Lakey, as Special Administrators for the Estate of Jared Lakey, Plaintiffs v. City of Wilson, et al. Case No. CIV-20-152-RAW*

DATE OF REPORT: 3/23/2022

QUALIFICATIONS, RELEVANT EXPERIENCE AND CERTIFICATION:

I am an Emergency Medicine physician and a Medical Toxicologist certified by the American Board of Emergency Medicine in the specialties of emergency medicine and medical toxicology. I am an Associate Professor in the Department of Emergency Medicine at the University of Texas Southwestern Medical Center at Dallas.

I serve as Attending Physician in the Parkland Hospital Emergency Department. Parkland is a Level 1 Trauma Center and has the most emergency room visits of any single hospital in the United States. Parkland has an acute crisis psychiatric emergency room. All psychiatric patients, including those with substance abuse, must first be evaluated, stabilized, and medically cleared in the main emergency department before transfer to the psychiatric department. As a Parkland emergency physician, I personally evaluate, manage, and treat patients presenting with trauma, medical emergencies, burns, psychiatric emergencies, overdoses and toxic exposures including illicit drugs.

I also serve as Medical Toxicology Faculty in the North Texas Poison Center. As a Medical Toxicologist, I consult with physicians in North Texas regarding the appropriate management of all types of overdoses, ingestions and toxic exposures through the North Texas Poison Center. I am an expert in recognizing the signs and symptoms of intoxication from prescription medications, alcohol and illicit substances.

As an Associate Professor at the University of Texas Southwestern at Dallas, I supervise medical students, interns, and residents at the bedside in the Parkland Hospital Emergency Department. I also provide lectures and training for the Department of Emergency Medicine. Through the North Texas Poison Center, I train medical students, emergency medicine residents, pharmacy residents and toxicology fellows in the management of poisoned patients as well as provide academic instruction during daily toxicology rounds.

I have cared for Dallas County's underserved population since 1999. I have helped educate and train every emergency medicine physician graduating from Parkland

Hospital's emergency medicine residency program since 2002. These physicians have gone on to staff emergency departments throughout the Dallas-Fort Worth metroplex, Texas and around the United States. I have helped train every medical toxicologist graduating from Parkland Hospital's medical toxicology fellowship program since 2004. I have provided medical control to emergency medical services (EMS) from Parkland's Biotel since 1999. As an Associate Professor at the University of Texas Southwestern Medical Center in the department of emergency medicine and medical toxicology, I have spent my entire career in an academic setting where we not only stay abreast of the latest advances in evidence-based medicine but are the very individuals that create the evidence for evidence-based medicine that dictates our practice and the practice of the emergency medicine and medical toxicology community. For 15 years, I have provided attorneys throughout the United States and the Texas Medical Board with expertise in the fields of emergency medicine and medical toxicology.

MATERIALS REVIEWED:

I was asked by Scott Wood from the Wood, Puhl & Wood, PLLC in Tulsa, Oklahoma, to perform an independent review of the July 2019 incident regarding Mr. Jared Lakey (JL). I was provided case-specific materials and asked to render an opinion regarding impairment/intoxication as well as cause of death. My methodology involved considering evidence regarding past medical and psychiatric history, the scene investigation, case details, eyewitness testimony, pathology examination, and laboratory analysis. Those materials included:

- Officer Body-Worn Camera Videos
- 911 Dispatch Calls
- Pleadings
- Discovery materials
- Witness Statements
- Taser Report
- Medical Examiner Report
- Scene photos
- Medical Records
- Tulsa Police Department Reports
- Deposition transcripts
- OBSI Prosecution Report
- Expert reports from criminal case
- Expert witness endorsements
- Criminal trial transcript

Ultimately, I evaluated and balanced that evidence using the physician tool of “differential diagnosis” and evidence-based medicine as well as review of the medical literature.

JARED LAKEY (JL): DOD 7/6/2019

PERTINENT CASE DETAILS:

- JL was 28 years old at the time of his death on 7/6/2019. He was obese at 343 lbs and was 5’9” in height. According to his parents, JL had no known health issues and was currently not taking any medications. He had a history of ethanol and substance abuse. JL lived with his parents in Duncan, Oklahoma.
- Kody Helms was JL’s friend from high school. They started using marijuana together in high school. The week of 7/2019, JL was staying with Helms at his home located at 655 Ada Street in Wilson, Oklahoma. On 7/4/2019, Helms was at work and got home around 1600. JL had been watching Helms’ 9-year-old son during the day. Around 1700-1800, JL, Helms, Helms’ son, and Helms’ girlfriend drove to Leon for a fireworks show. JL was drinking beer and was not acting intoxicated. JL then left with Chance Digby and the Moyers family before dark. They hung out at Helms’ house while Helms was still in Leon. Helms returned to his home in Wilson around midnight and JL was acting “wild and crazy.” He was acting “weird”, “breathing heavy”, and “sweating.” Digby looked normal but seemed angry with JL and they were yelling at each other. JL’s shirt was off. Then JL punched the front door and dented it and then left and was walking west on Ada Street. At 0027, Helms called JL’s brother Justin and told him JL was acting erratic.
- The Greenroyds lived at 787 Ada Street. They were on their front porch around midnight on 7/4/2019 when they spotted someone [JL] coming down the road and screaming. JL was moving back and forth in the intersection. Mrs. Greenroyd called Wilson Dispatch.
- Joshua Taylor was a captain with the Wilson Police Department. On 7/4/2019, Taylor and Wilson police officer Brandon Dingman were at a nursing home on a previous call when a call came that a male was screaming and cussing on Ada Street. Taylor left the nursing home and responded to the area. He saw a male [JL] naked except for a pair of black socks. JL came up to the front passenger side of Taylor’s police vehicle. Taylor asked JL what was going on and JL replied that he was “looking for his fucking shorts.” JL grabbed the push bumper mounted on the front of the police vehicle and pushed it up and down. JL said, “Okay, if we’re going to do this, let’s do it.” Taylor put JL at taserpoint and called for Dingman to assist. JL was very agitated and had enough force to rock the whole vehicle. Taylor ordered JL to lie down. JL laid down on the

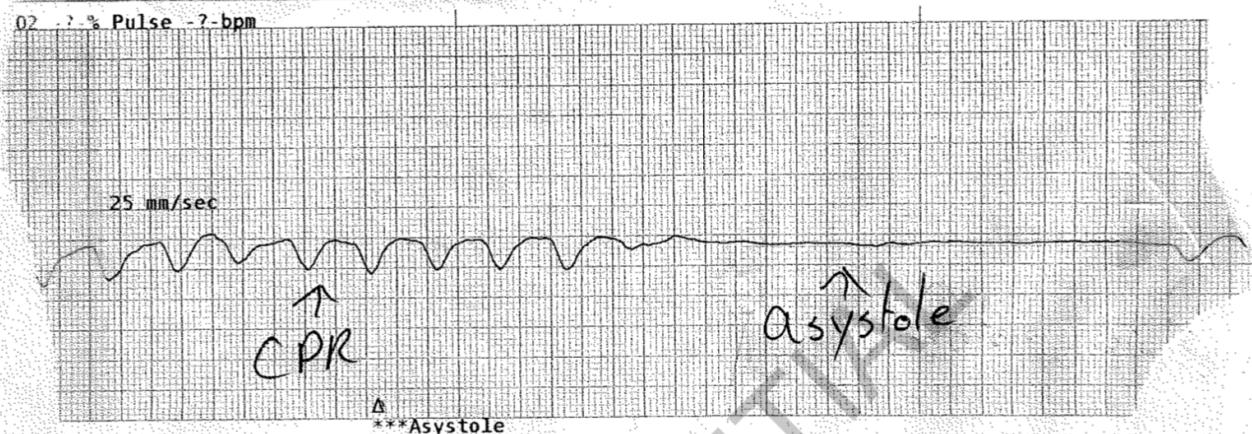
ground on his back and started making snow angels. Taylor told JL to turn over on his stomach and put his arms behind his back. JL was on his stomach and then got into a pushup position. Dingman put his foot on JL's back and shoulder blade to keep him down, but JL pushed up very agitated and aggressive. Taylor deployed his taser. Both taser leads made contact and delivered a 5-second charge. JL was instructed to put his hands behind his back, but JL rolled from his stomach to his back. It appeared that one of the taser leads came out, so Taylor switched cartridges. Dingman drew his own taser and held JL at taserpoint. Taylor gave JL commands to put his hands behind his back and JL responded "Ok Ok". Taylor holstered his taser and stepped forward to put JL in handcuffs, but JL aggressively jumped straight to his feet. Dingman deployed his taser. JL was standing, became rigid but looked like he was not experiencing the full effect of the taser. Taylor drew his taser and deployed it again. JL went to the ground. Taylor could see both prongs in JL's back. Dingman got on the radio and said tasers had been deployed. JL was still combative and rolling on the ground. Taylor thought JL was on PCP or had excited delirium. When Taylor gave commands and JL would get agitated, Taylor would reactivate the taser to get JL into handcuffs. JL rolled himself over to a chain-link fence and tried to pull himself up. He had a "thousand-yard stare." One of the taser leads broke off and both officers were out of taser cartridges. JL stood up then sat straight down on his butt and was still breathing. [Joshua Taylor and Brandon Dingman Interview OBSI]

- Mark Cole was on a ride-along with his brother-in-law Joshua Taylor. Cole was sitting in the front passenger seat. They were at the nursing home when they received a call about somebody hollering and screaming in the street. Ultimately, they spotted a naked male [JL] came up out of the bar ditch and acted like he was going to come to Cole's window which was down. Cole rolled up the window because JL was coming at him kind of aggressively. JL was all messed up. JL was trying to pick the car up and shake it. [Mark Cole Interview OBSI]
- David Duggan was a captain with the Carter County Sheriff's Office. His shift was ending at midnight on 7/4/2019. He was on his way home when he heard Wilson PD officers dispatched over the radio because of a guy running down the road and screaming. Later, he heard the Wilson Officers calling for help, that they had deployed tasers, and the subject was not compliant. Duggan sped to the scene. He saw Taylor and Dingman standing in the street about 12-15 feet from JL. JL was completely naked sitting on the ground tensed up, grunting, and agitated. JL was not following commands. Then Lone Grove Police Officer Terry Miller arrived at the scene. Duggan came up from behind JL and applied a rear neck restraint. JL lost consciousness so Duggan rolled him over and released pressure on the restraint. Taylor, Dingman, and Miller got JL cuffed.

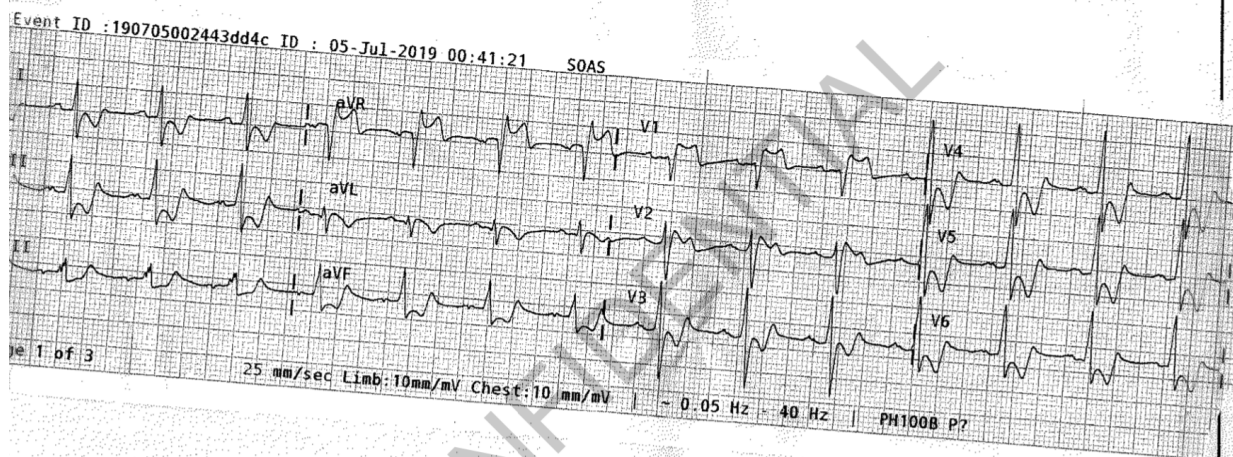
They sat JL up and woke him up by slapping him on the back several times. JL woke up and was breathing. While handcuffed, JL was sitting there grunting and doing the same thing as earlier in an agitated “pissed” off manner. JL had a “dead stare” and was acting the same after waking back up as he had before loss of consciousness. After 4-5 minutes, suddenly there was nothing. JL quit breathing. Southeastern Oklahoma Ambulance Service and Wilson fire were dispatched. Duggan thought JL overdosed on something so he was uncuffed and laid him down. The taser probes were removed. Narcan was administered and Miller started CPR. [Duggan Interview OBSI; trial transcript]

- Terry Miller was a Lone Grove Police Officer for 2 years. On 7/4/2019, Miller was on patrol. At 2350, he heard Wilson police officer Dingman say on the radio that tasers had been deployed and “send additional units.” Miller headed toward Wilson and arrived behind Duggan. Dingman approached him and suggested Miller might want to get some gloves. Miller returned to his vehicle and obtained gloves. Miller saw JL naked sitting on the grass in front of the vehicle with Dingman holding his left arm and Taylor holding his right arm. Duggan was behind JL using what looked like a head and neck restraint. Miller put his foot on the back of JL’s leg because JL was struggling, and it was difficult to get his arms behind his back to get him cuffed. JL was placed in a seated position, and they tried to stand him up. Duggan said, “he’s still asleep, we have to wake him up.” Duggan started rubbing and smacking JL on the back. JL came to but was not talking or really struggling. JL was moving for a while then stopped. Miller was trying to hold JL’s head up to keep his airway open. Healdton Police Officer Brandon Dunn walked up and said, “guys I don’t know if he’s breathing.” Miller could not find a pulse. JL’s eyes were completely dilated, fixed and not responsive to light at all. CPR was initiated. A dose of Narcan was administered. EMS was dispatched. EMS was able to get a pulse back and that it looked like a massive myocardial infarction on the screen. [Terry Miller Interview OBSI]
- On 7/5/2019 at 0014, the Southern Oklahoma Ambulance Service was dispatched to the intersection of 1st and Ada Street in Wilson, Oklahoma for a patient that had been tased by the police multiple times. They were advised the patient had stopped breathing and CPR was in progress after he had been running around naked and was tased 4 times. Initial rhythm on the monitor was asystole. Epinephrine 1 mg IV was administered x 3. JL was intubated.
- On 7/5/2019, the Southern Oklahoma Ambulance Service obtained a rhythm strip demonstrating asystole and the rhythm with variation due to chest compressions:

PATIENT NAME: Sared Lahey LP 12 EKG REPORT DATE: 7-5-19 RUN # 2019-00024916

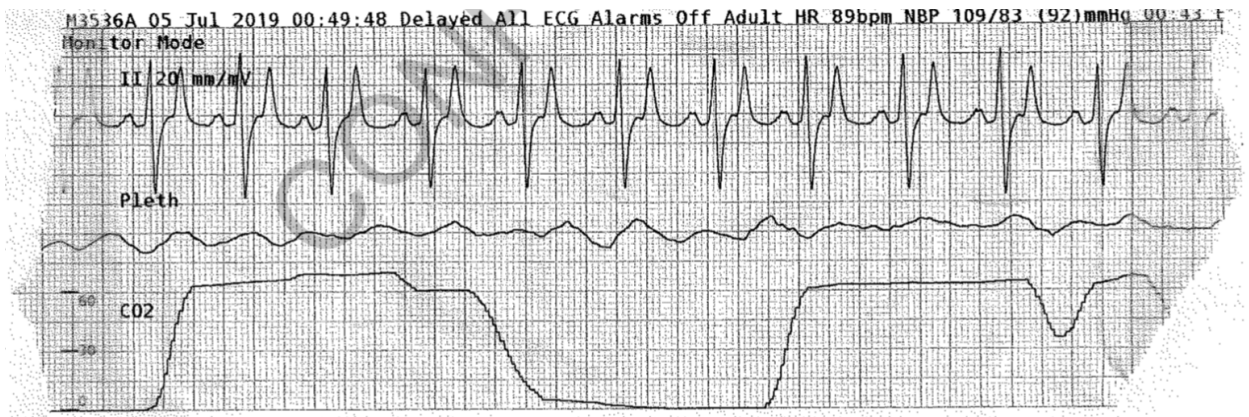


- On 7/5/2019 at 0041, the Southern Oklahoma Ambulance Service obtained a 12-Lead ECG demonstrating a septal MI [myocardial infarction] with reciprocal changes:



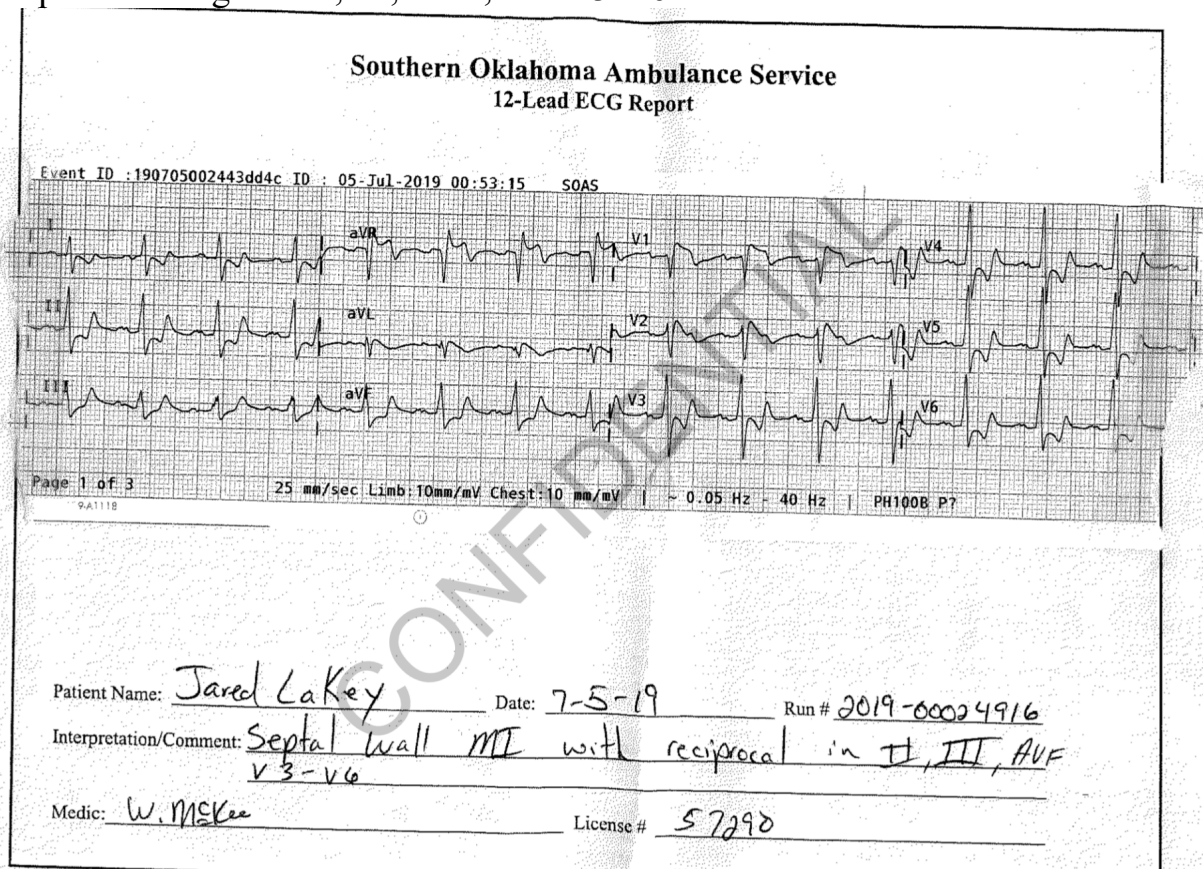
Patient Name: Sared Lahey Date: 7-5-19 Run # 2019-00024916
 Interpretation/Comment: Septal MI with reciprocal changes
 Medic: W. Miller License # 57290

- On 7/5/2019 at 0049, the Southern Oklahoma Ambulance Service obtained a rhythm strip after ROSC [return of spontaneous circulation]:



INTERPRETATION/COMMENTS Sinus post ROSC
 MEDIC: W. McKee LICENSE # 57290

- On 7/5/2019 at 0053, the Southern Oklahoma Ambulance Service obtained a 12-Lead ECG Report demonstrating a septal wall MI [myocardial infarction] with reciprocal changes in II, III, AVF, and V3-V6:



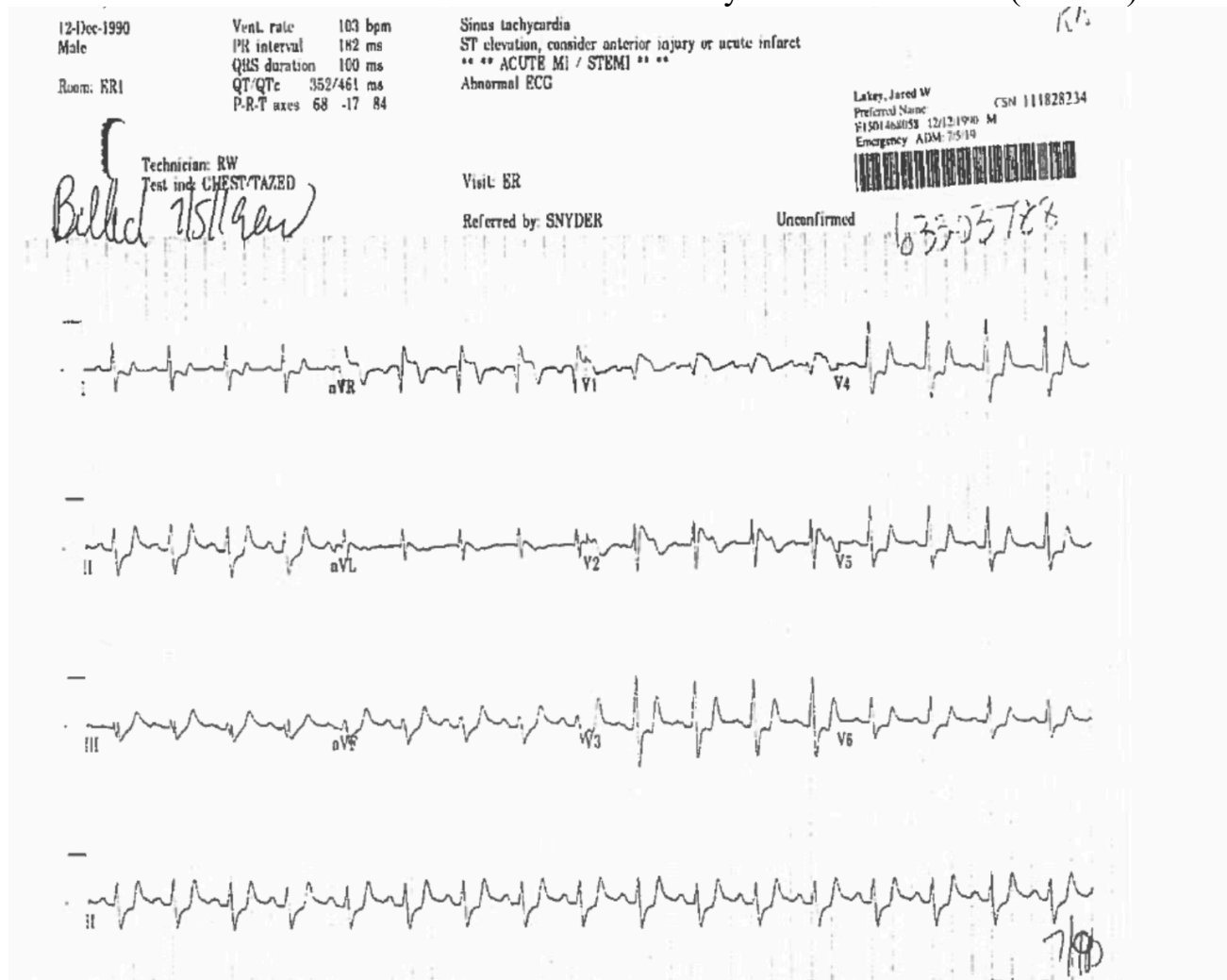
- JL was transported to Mercy Hospital Healdton and arrived at 0059. Per the ED Provider Notes:

Subjective

Report from EMS and law enforcement:

He had been fighting with law enforcement, was tasered x4 total - law enforcement says 1st was about 11:30. They were finally able to subdue him then while on the ground he stopped breathing. Nasal narcan was given with no response. CPR was started. EMS arrived, noted asystole, IO inserted, epi given, intubated. ROS occurred. CPR 10-15 minutes. On route lost pulse again, CPR resumed, epi given, ROS after maybe 5 minutes of CPR. 12 lead by EMS indicated acute MI/STEMI.

- Officer Dunn went to the hospital. Family members told Dunn that JL had eaten a “bunch of shrooms”, “may have done a little meth”, and was drunk.
- CBC, CMP, and troponin were consistent with multiorgan dysfunction after a cardiac arrest. At 0102, JL lost a pulse and CPR was started. Epinephrine was administered and there was again ROSC. CXR was unremarkable. EKG obtained at 0102 revealed an acute ST-elevation myocardial infarction (STEMI):



- A heparin infusion was initiated and JL was transferred to Oklahoma University Medical Center by Survival Flight for a higher level of care. JL's condition, however deteriorated and his family agreed to cessation of treatment. Time of death was 0632 on 7/6/2019:

Hospital Course:

Mr. Lakey was a 28-year-old man with PMH of EOH and substance abuse transferred to OUMC from an outside facility for a STEMI following an altercation with police officers. Per report he consumed alcohol and possibly illicit drugs (UDS here negative), became combative with officers prompting them to use tazers to subdue him. Reportedly following that he stopped breathing and lost a pulse, underwent at least 20 minutes of CPR before ROSC was achieved. Then en-route to an outside facility underwent another code event, unsure how long that one was. Intubated at OSH, found to have STEMI on EKG and poor neurologic assessment prompting transfer to OUMC. On admission GCS3t with pupils fixed/dilated. Found to have ARF requiring CRRT, shock liver, elevated troponins 3.8 > 28.9, DIC requiring blood products. Throughout hospitalization DIC worsened, pressor requirements increased. Also with worsening hypoxia despite ventilation with 100% FiO₂, proning, iNO, and paralysis. Oxygen saturations worsened throughout the night of 7/5 - 7/6/19 until ~0545 when he lost a pulse. Asystole noted despite appropriate ACLS measures for ~45 minutes. Family at bedside agreed to cessation of treatment ~0630 on 7/6/19, time of death 0632.

- An autopsy was performed by the Office of the Chief Medical Examiner in Oklahoma City, Oklahoma with the following findings, cause, and manner of death:

FINDINGS

1. Critical coronary atherosclerosis, with approximately 75% stenosis of distal LAD (clinical diagnosis of acute myocardial infarction).
2. Cardiomegaly, heart 581 grams, with concentric left ventricular hypertrophy.
3. Autopsy negative for lethal physical traumatic injury.
4. Multiple plaques on skin of anterior abdomen and back, consistent with conducted electrical weapon discharge injury.
5. Evidence of end-organ ischemia:
 - A. Edema of brain, marked, with ischemic neuronal change.
 - B. Acute tubular necrosis of kidneys.
 - C. Necrosis of small intestine.
6. Congestion and edema of both lungs.
7. Bilateral serosanguinous pleural effusions, right 500 mL, left 250 mL.
8. Ascites, serosanguinous, 1100 mL.
9. Postmortem toxicology testing is non-contributory (see OCME Report of Laboratory Analysis).
10. Severe diffuse steatosis and bridging fibrosis of liver.
11. Evidence of recent medical intervention.
12. Multiple recent superficial cutaneous abrasions.

(See pg 2 for COMMENT)

CAUSE OF DEATH:

COMPLICATIONS OF MYOCARDIAL INFARCTION (CLINICAL) IN THE SETTING OF CARDIOMEGALY AND CRITICAL CORONARY ATHEROSCLEROSIS AND LAW ENFORCEMENT USE OF CONDUCTED ELECTRICAL WEAPON AND RESTRAINT

OSC:

OBESITY

MANNER OF DEATH:

UNDETERMINED

- Toxicology testing was performed on heart blood, hospital blood B (7/6/2019 at 0120), and hospital serum C (7/5/2019 at 0537) with the following results:

NOTES:

ETHYL ALCOHOL:

Blood: Not Performed

Vitreous:

Other:

CARBON MONOXIDE

Blood:

TESTS PERFORMED:

ALKALINE DRUG SCREEN - (Heart Blood) and (Hospital Blood B)

EIA - (Hospital Serum C) - Amphetamine, Methamphetamine, Fentanyl, Cocaine, Opiates, PCP, Barbiturates, Benzodiazepines
(The EIA panel does not detect Oxycodone, Methadone, Lorazepam or Clonazepam)

RESULTS:

MIDAZOLAM

POSITIVE - (Hospital Blood B; 7/6/19 at 0120 hrs)

LAUDANOSINE

POSITIVE - (Hospital Blood B; 7/6/19 at 0120 hrs)

PANTOPRAZOLE

POSITIVE - (Hospital Blood B; 7/6/19 at 0120 hrs)

- Download of Taylor and Dingman's tasers revealed the following:

TAYLOR'S taser (serial # X120004EP) indicated 30 trigger pulls (active shock discharges) between 2349 hours and 2358 hours on July 4, 2019. The longest discharge duration was 12 seconds and the shortest was one second. Sixteen of the thirty discharges were the default 5-second duration. The taser was discharged for a cumulative total of 122 seconds over a period of nine minutes.

DINGMAN'S taser (serial # X120002FF) indicated 23 trigger pulls between 2145 hours and 2154 hours on July 4, 2019 (the device's internal clock was not synchronized). The longest discharge duration was 6 seconds and the shortest was 3 seconds. Twenty-one of the twenty-three discharges were the default 5-second duration. The taser was discharged for a cumulative total of 114 seconds over a period of nine minutes.

DISCUSSION:

When evaluating cause of death, a systematic approach is necessary to first rule-out obvious causes of death from trauma or natural causes. Sudden cardiac arrest from an underlying arrhythmia was also considered. An analysis of JL's death from a toxicological perspective was considered. JL's death was then evaluated based on literature regarding sudden in-custody deaths including "positional asphyxia", death from conducted energy weapons (CEWs), excited delirium syndrome (ExDS) and stress cardiomyopathy.

Traumatic Cause of Death

There were multiple linear and irregular superficial abrasions of the head, thorax, and

both upper and lower extremities. There were recent posterior, bilateral galeal and subgaleal hemorrhages of the head without underlying skull fractures or intracranial trauma. These external signs of minor trauma at autopsy were noted, but superficial lacerations, abrasions or contusions do not cause death in and of themselves. Autopsy did not reveal any other evidence of external traumatic injuries. Autopsy did not reveal any underlying organ injuries from blunt trauma in the thorax or intra-abdominal injuries such as liver or spleen lacerations. The pleural, pericardial, and peritoneal spaces did not reveal any major hemorrhage. Autopsy included dissection of the neck, with layer-by-layer examination grossly remarkable for hemorrhage associated with medical intervention. The hyoid bone, larynx, and cervical spine were indicated by the Medical Examiner as grossly intact. There were no skull fractures seen at autopsy. Trauma to the head or face can cause an epidural hematoma, subdural hematoma, or subarachnoid hemorrhage—all of which could cause sudden death. However, none of these findings were present at autopsy. **Therefore, JL did not die from traumatic causes resulting from any supposed excessive use of force by any law enforcement officer involved in the incident of 7/4/2019.**

NATURAL CAUSES OF DEATH WITH GROSS FINDINGS ON AUTOPSY

- Table 1 lists frequent causes of adult sudden death from natural causes.

Table 1. Frequent Natural Causes of Adult Sudden Death

Airway	Choking/acute airway obstruction
Pulmonary	Acute asthma exacerbation
	Pulmonary embolism
Neurological diseases	Sudden unexpected death in epilepsy
	Acute CNS hemorrhage
Cardiovascular diseases	Coronary artery disease (CAD)
	Hypertrophic cardiomyopathy
	Dilated cardiomyopathy
	Lymphocytic myocarditis
	Aortic stenosis
	Congenital cardiac abnormality
	Coronary artery dissection
	Aortic dissection

The autopsy did not reveal any signs of airway obstruction from a foreign body or otherwise. JL did not have a known medical history of asthma. Pulmonary embolism is not an uncommon cause of sudden death. Pulmonary embolism is a blood clot originating from the deep veins (usually of a lower extremity) and will “travel” to the vasculature of the lungs. A pulmonary embolism was not found on autopsy. There were no descriptions of JL developing seizure activity before he became unresponsive, and this is not evident on the police body camera video either. There were no intra-cerebral hemorrhages found on postmortem examination of the brain. JL was found to have concentric left ventricular hypertrophy and coronary artery disease with a 75% critical stenosis of the left anterior descending (LAD). EKGs performed by EMS at 0041, 0053, and in the ER at 0102 consistently show ST elevations consistent with ST-elevation myocardial infarction (STEMI) or known in lay language as a “heart attack.” An acute clot was not found in the coronary artery on autopsy, but JL had been placed on a heparin infusion prior to transfer to Oklahoma University. **Therefore, cardiac arrest from a STEMI cannot be ruled out as a proximate cause of JL’s sudden death.**

TOXICOLOGIC CAUSES OF DEATH

The word “toxidrome” is a combination of the words toxic and syndrome. A toxidrome is the constellation of signs and symptoms for a given toxin or drug or the CLINICAL appearance of certain drug intoxication. In other words, intoxication from one substance “looks different” than intoxication from another class of substances. I spent 2 years in a medical toxicology fellowship learning to discern between the variety of toxidromes for the wide variety of drugs and toxins— that is, to discern how drug intoxications appear to an observer based on the drug ingested. JL’s behavior and appearance on 7/4/2019 is indicative of the constellation of signs and symptoms consistent with the “sympathomimetic toxidrome.” Intoxication from stimulants such as methamphetamine or cocaine produce sign and symptoms consistent with the “sympathomimetic toxidrome”—stimulant drugs stimulate or mimic the sympathetic nervous system which is the “fight or flight” nervous system. Sympathomimetic drugs cause euphoria, excitability, agitation, hyperreflexia, hyperthermia, dizziness, and hypervigilance. Signs of acute intoxication include dilated pupils, diaphoresis (sweaty), an increased heart rate, elevated blood pressure, agitation, or neurological excitation. Heavy users experience a post-binge crash, including extreme fatigue, hypersomnolence and lethargy. Chronic users tend to develop delusions, paranoia,

hallucinations, psychosis, and dissociation, and has also been linked to neurodegeneration and cognitive impairment. Emergent and serious medical complications associated with sympathomimetic use include cardiac arrhythmias, heart attacks, hyperthermia, renal and liver failure, strokes, and seizures.

JL was alive in hospitals for approximately 31 hours after his initial cardiac arrest. Therefore, postmortem blood would not have been useful. Toxicology testing was performed on heart blood (postmortem), hospital blood B (7/6/2019 at 0120), and hospital serum C (7/5/2019 at 0537). Antemortem samples were taken from 6 to 25 hours later when many drugs would have metabolized. Testing was not performed on initial blood samples as those samples were not retained. More importantly, there are other novel psychoactive substances (NPS) that are not routinely tested for in blood samples as the more common drugs such as methamphetamine or cocaine. There is mention of “shrooms” possibly ingested in this case. “Shrooms” refer to psilocybin-containing mushrooms. After psilocybin is ingested, it is metabolized to psilocin. Both are hallucinogenic psychedelic compounds known as tryptamines which cause sympathomimetic toxicity similar to lysergic acid diethylamide (LSD) and can also cause excited delirium (discussed later). These compounds are not typically tested for in routine toxicology assays. **Therefore, sympathomimetic intoxication from a novel psychoactive substance or an uncommon hallucinogenic substance cannot be ruled out as a proximate cause of JL’s behavior and cardiac arrest on 7/4/2019.**

SUDDEN IN-CUSTODY DEATH

“Sudden in-custody death syndrome” is a term to describe unexplained deaths when police are involved and is important to consider in JL’s sudden cardiac arrest. Encompassed in this syndrome are also the terms “excited delirium syndrome” (ExDs), “capture cardiomyopathy” and “positional asphyxia”. Others might raise the question whether the use of a conducted electrical weapon (CEW) such as a TASER delivers sufficient electrical charge to the heart to cause a life-threatening arrhythmia. Physicians that do not practice in an emergency department setting will likely never encounter ExDS. For example, ExDS patients do not present to community internists, surgeon’s offices, or general medical floors. But ExDS is a syndrome observed by law enforcement, first responders, and emergency physicians. The American College of Emergency Physicians (ACEP) formally recognized ExDS in 2009. ACEP convened a task force that performed *an extensive review of the literature* and ultimately published a position paper on ExDS. Position papers hold great weight in the medical community because they are not written by a single author or small group of authors but represent a consensus of a task force and require agreement by all the authors on the final paper. In the position paper, the ACEP task force concluded: “Based upon

available evidence, it is the consensus of the American College of Emergency Physicians Task Force that Excited Delirium Syndrome is a real syndrome with uncertain, likely multiple, etiologies.”¹ In April 2011, the National Institute of Justice (“NIJ”) of the United States (US) Department of Justice (“DOJ”) convened a meeting of experts in ExDS known as the ExDS Workshop Panel. A report was then published that discussed the definition, epidemiology, pathophysiology, differential diagnosis, and acute treatment of ExDS. The features of ExDS are listed below.² The features of ExDS that were also exhibited by JL are checked:

ExDS Features in History

- ✓ Male gender
- ✓ Mean age in the 30s (JL was 28)
- ✓ Sudden onset
- ✓ History of psychostimulant abuse
- ✓ History of mental illness

ExDS Features Evident at the Scene

- ✓ Call for disturbance/psychomotor agitation/excitation
- ✓ Violent/combative/belligerent/assault call
- ✓ Not responding to authorities/verbal commands
- ✓ Psychosis/delusional/paranoid/fearful
- ✓ Yelling/shouting/guttural sounds
- ✓ Disrobing/inappropriate clothing
- ✓ Violence toward/destruction of inanimate objects
- ✓ Walking/running in traffic
- ✓ High body mass index

Features Evident on Police Contact

- ✓ Significant resistance to physical restraint
- ✓ Superhuman strength
- ✓ Impervious to pain
- ✓ Continues to struggle despite restraint
- ✓ Profuse sweating/clammy skin

ExDS Features with Clinical Assessment

- Tachypnea [intubated]
- Tachycardia [cardiac arrest]
- Hyperthermia [not recorded]
- Hypertension [66/28 s/p cardiac arrest]
 - ✓ Acidosis [anion gap 39]
 - ✓ Rhabdomyolysis [initial level 814 and Cr 2.4]

ExDS Features of Death

- ✓ Period of tranquility “giving up”
- ✓ Sudden collapse after restraint
- ✓ Respiratory arrest described
- ✓ Cardiac rhythm brady-asystole/PEA
- Aggressive resuscitation unsuccessful

ExDS Features on Autopsy

- Drug screen positive for psychostimulants (see discussion above)
- Drug levels lower than anticipated (see discussion above)
- No anatomic correlate for death [critical LAD stenosis and clinical STEMI]
- Dopamine transporter dysregulation (not assessed)
 - ✓ Cardiac hypertrophy

ExDS is precipitated by mental illness, recent psychostimulant use, or both. Psychostimulants often include cocaine, amphetamines, or phencyclidine (“PCP”), or novel psychoactive compounds (NPS). ExDS is typically a retrospective diagnosis and is often difficult for physicians to make contemporaneously merely from observation of the agitated individual. Thus, it is very difficult if not impossible for law enforcement or first responders to differentiate ExDS from alcohol or drug intoxication, mental illness, or mere combativeness. In her October 2016 article, Deborah Mash explains how all psychostimulants increase the synaptic levels of dopamine, which may explain why chronic psychostimulant abusers are at risk for exhibiting the behavioral symptoms associated with ExDS. Finally, Mash concludes³:

Elevated levels of dopamine coupled with failed dopamine transporter function leads to agitation, paranoia and violent behavior associated with ExDS. Increased dopamine levels also affect heart rate, respiration, and temperature control with elevation resulting in tachycardia, tachypnea and hyperthermia. Hyperthermia is a hallmark of excited delirium and a harbinger of death in this syndromal disorder. Victims of excited delirium are in an extremely heightened emotional state with marked paranoia and mounting irrational fear. Central neuronal circuitry in the brain-heart axis may be a precipitant of sudden fatal arrhythmia, since hyperdopaminergic signaling in the limbic system translates extreme emotional stress into autonomic toxicity and the demise of the heart. The connection between hyperdopaminergia in ExDS and chaotic signaling in these higher brain autonomic regulatory centers may explain the abrupt loss of autonomic function that leads to sudden unexpected death of these victims. Excited delirium is a syndromal disorder, which is controversial and highly debated because the mechanism of lethality is unknown. Molecular studies of the brains of autopsy victims who died in states of excited delirium reveal the [loss](#) of dopamine transporter function as a possible trigger of a cascade of coordinated neural activity that contributes to asphyxia and sudden cardiac arrest.

ExDS is a syndromic disorder. As with many other clinical syndromes, there is not a definitive diagnostic “test” for ExDS and must be identified by its clinical features. Not all features need to be present to reach a diagnosis of ExDS. As with other clinical syndromes, ExDS exists along a spectrum with minor ExDS displaying a few features and severe ExDS displaying many of the features. Kindling refers to increased sensitization of the brain to certain stimuli. Repetitive exposure to ExDS-triggering substances leads to kindling events in the brain that start the individual down the progressive path of ExDS with each subsequent presentation becoming worse until death occurs.

JL’s behavior on 7/4-5/2019 is consistent with intoxication from a sympathomimetic substance, especially considering the acute onset of his behavior. Moreover, JL’s behavior during his interaction with law enforcement displays how he had “moved along the spectrum” of sympathomimetic intoxication to excited delirium.

When JL suffered sudden collapse and cardiac arrest, the initial rhythm documented by EMS was asystole--not a ventricular arrhythmia. This is an important feature that distinguishes death due to excited delirium syndrome. **JL’s death is consistent with ExDS.**

Positional Asphyxia:

Asphyxia is a restriction of breathing that can interfere with the delivery of oxygen to tissue. Discussion regarding asphyxia is hindered by confusion as there is not standardization of the definitions or classification of asphyxial deaths. Sauvageau et al. proposed classifying asphyxia into four main categories: suffocation, strangulation, mechanical asphyxia, and drowning. Mechanical asphyxia includes positional asphyxia and traumatic asphyxia. Positional asphyxia is hypothesized to cause death when an individual is placed in the prone (or face-down) position. Historically, positional asphyxia was used to describe deaths in individuals who had happened into odd positions where their chest had been splinted or the diaphragm was prevented from moving. The respective definitions are given in the table below⁴:

TABLE 6—Definitions of terms in the proposed unified classification.

Term	Definition
Suffocation	A broad term encompassing different types of asphyxia such as vitiated atmosphere and smothering, associated with deprivation of oxygen
Smothering	Asphyxia by obstruction of the air passages above the epiglottis, including the nose, mouth and pharynx
Choking	Asphyxia by obstruction of the air passages below the epiglottis
Confined spaces/ entrapment/ vitiated atmosphere	Asphyxia in an inadequate atmosphere by reduction of oxygen, displacement of oxygen by other gases or by gases causing chemical interference with the oxygen uptake and utilization
Strangulation	Asphyxia by closure of the blood vessels and/or air passages of the neck as a result of external pressure on the neck
Ligature strangulation	A form of strangulation in which the pressure on the neck is applied by a constricting band tightened by a force other than the body weight
Hanging	A form of strangulation in which the pressure on the neck is applied by a constricting band tightened by the gravitational weight of the body or part of the body
Manual strangulation	A form of strangulation caused by an external pressure on the structures of the neck by hands, forearms or other limbs
Mechanical asphyxia	Asphyxia by restriction of respiratory movements, either by the position of the body or by external chest compression
Positional or postural asphyxia	A type of asphyxia where the position of an individual compromises the ability to breathe
Traumatic asphyxia	A type of asphyxia caused by external chest compression by a heavy object
Drowning	Asphyxia by immersion in a liquid

Thus, mechanical asphyxia involves restriction of respiratory movements, either by position of the body or by external chest compression. Positional or postural asphyxia connotes that the individual's position compromises the ability to breathe. Traumatic asphyxia is caused by external chest compression by a heavy object. JL was continuing to resist, move, and grunt during his struggle with police indicating that he was breathing. Not infrequently, facial plethora (redness of the face) will be noted on autopsy when an individual has died from asphyxiation. There were no autopsy findings to suggest asphyxia on JL's autopsy report.

More importantly, current literature does not support the mechanism of officer-induced positional asphyxia, especially simply from prone positioning. Let's review a sampling of the most recent literature. In 2007, Michaelwitz et al. investigated the ventilatory and metabolic demands in healthy adults who had been placed in the prone maximal restraint position. The maximal minute ventilation was measured. They concluded that the decrease in maximal minute ventilation was not clinically significant in these subjects and that they were still able to supply their ventilatory needs.⁵ In 2012, Hall et al. concluded that the prone position had no clinically significant effects on subject physiology.⁶ In 2013, Savaser et al. evaluated the effect of maximal prone restraint on subjects aged 22 to 42 years old. Volunteers were hogtied in the supine, prone, prone maximal restraint with no weight force, and prone maximal restraint with 50 pounds added to the subject's back, and prone maximal restraint with 100 pounds added to the subject's back for 3 minutes. There were no statistical differences in heart rate, mean arterial pressure (MAP), and oxygen saturation in the variety of positions.⁷ In 2014, Sloane found no evidence of hypoxia or hypoventilation in 10 intensely exercising volunteers who were then placed in prone maximal restraint in 3 different positions for 15 minutes.⁸ Finally in 2016, Karch explores alternative theories in arrest-related

deaths.⁹ **Therefore, it is not within reasonable medical probability that JL died from mechanical, positional, postural, traumatic or restraint asphyxia.**

CEW (TASERS) – Basic Electrical Principles:

Tasers primarily have two modes: “drive stun” mode and “probe” mode. Drive-stun mode uses less quantum of force than probe mode and is used for pain compliance. Drive-stun mode does not cause neuromuscular incapacitation. However, even if the taser was used in probe mode, it would not cause cardiac arrest.

Many individuals have long forgotten basic electrical principles that were taught in middle school Physics. However, a review of these basic principles is essential to understand electrical injury and how electricity might cause a fatal arrhythmia. These principles are also critical to understand how CEWs affect the human body.

At Parkland, we receive all burn/electrical injuries around North Texas. I evaluate and treat many patients with electrical injuries. Type and amount of delivered electrical current (or charge), current pathway, resistance to flow and duration of exposure all determine the severity of an electrical injury. Reports in the media often focus on the fact that the CEW’s output is 50,000 volts. Voltage alone is not an indicator of electrical safety or risk of electrical injury. Whereas 50,000 volts may sound impressive, static electricity can exceed 30,000 volts. A Van der Graaf generator ranges from 100,000 to 25 million volts—yet children safely, without risk of injury, place their hands on them in science museums and science classrooms all the time. As previously stated, the severity of electrical injury does not depend upon the voltage but other factors. Static electricity, Van der Graaf generators, and tasers all have low current—and that is why, in part, they are not dangerous. Cardiac capture is when an electrical stimulus causes a corresponding electrical depolarization of the atria and ventricles of the heart. This then must be followed by mechanical capture where the heart actually “beats” in response to this depolarization. There is a complex relationship between current, voltage, resistance and sufficiently rapid, or prolonged, cardiac capture causing a fatal rhythm. Another important relationship to recognize is the relationship between electricity and defibrillation in terms of joules (J). That is because defibrillators in the medical setting to convert patients out of VF require 200 J to 360 J. For pediatric defibrillation the standard is 2–9 J/kg (joules/kilogram) for infants and children. Thus, for a 5 kg infant Pediatric Advanced Life Support (“PALS”) Guidelines states that 10–45 J have been found effective “with negligible adverse effects.” Also, the surface area of defibrillator paddles is significantly larger than the amount of area covered by CEW probes.

See the illustrations below:



Figure 1 Defibrillator paddles.



Figure 2 13-millimeter (mm) TASER probes.

Merely understanding basic electrical principles, recognizing the small joule delivered energy by the CEW, and the small surface area of a TASER probe, one can visualize how highly unlikely a CEW delivered charge would obtain cardiac capture sufficiently, rapidly, or for enough amount of time to induce a fatal rhythm. Cardiac capture in and of itself is not injurious. Cardiac capture is not synonymous with VF or cardiac arrest. As emergency physicians know, and as clearly crystallized in literature, there is a significant safety margin between cardiac capture and sufficiently rapid or prolonged cardiac capture to induce VF or cardiac arrest. Emergency physicians often utilize transthoracic cardiac pacemakers that deliver many times more charge than a CEW without concern for inducing VF or cardiac arrest because of the significant safety margin. Electricity does not accumulate in the body to then suddenly create enough

charge to cause cardiac capture. **Thus, it is irrelevant whether one is tased 4 times or 53 times. If a charge is sufficient to cause VF arrest, it occurs instantaneously on the first shock.**

Besides understanding basic electrical principles and heart electrophysiology when assessing allegations of cause of death from a CEW, it is also important to carefully review at least a sampling of the current literature.

Jauchem concluded in the Journal of Forensic and Legal Medicine:¹⁰

“Primary effects of factors coincident with ECD [electronic control device] exposure events may, by themselves, be more harmful than effects of limited ECD applications. Many victims of drug-induced excited delirium die without the application of any specific law-enforcement techniques. Stone noted that, on the basis of medical evidence, ECDs are not “the causes, in and of themselves”, of sudden deaths in custody”.¹⁵

Ideker and Dosdall published a review article in 2007 in The American Journal of Forensic Medicine and Pathology. They reviewed the available scientific literature and concluded that the immediate induction of VF by the direct electrical effects of the TASER X26 CEW on the normal adult heart is unlikely and that the induction of delayed cardiac arrest by this mechanism is extremely unlikely.¹²

Other articles in the medical literature studied the effects of the TASER X26 CEW on the heart. Ultimately, it was concluded that the TASER X26 CEW produced no significant electrocardiograph (EKG) changes and no detectable dysrhythmias.^{13,14,15}

In the review of the video footage, the last trigger pull of the taser was at video marker 00:09:20. At video marker 00:10, JL is noted to be seated on his own, awake and breathing. At video marker 00:14, JL is still breathing. At video marker 00:15:45, JL is slumping over. This is approximately 6 minutes and 25 seconds after the last trigger pull of the taser.

If one is struck by lightning and suffers a VF arrest, **the arrhythmia occurs immediately on contact with the electric “jolt”**— not seconds to minutes later. Therefore, understanding basic electrical principles, recognizing that it was over 6 minutes before a respiratory arrest occurred, and reviewing the literature and applying that research and literature to the facts of the JL incident, **it is implausible that JL died from the CEW applications by police officers.**

Stress cardiomyopathy:

Stress cardiomyopathy, or “capture myopathy”, is a fatal stress reaction characterized by acidosis and rhabdomyolysis followed by death within minutes to weeks. This condition was first defined in the 1950’s in animal models that is observed across different species. The pathophysiology behind stress cardiomyopathy is a combination of fear, sympathetic nervous system activation the endocrine/adrenal system coupled with muscular activity. Acute stress as the fatal mechanism that occurs in a short time span from exposure to death include “Capture Shock Syndrome” (CSS) and “Delayed Per Acute Syndrome” (DPS). In animal models, animals displaying CSS die either while restrained or up to 6 hours later. During this time frame, the animals are seen trying to escape followed by lying motionless. During this motionless period the animals are found to have shallow rapid breathing, hyperthermia, tachycardia, and a weak pulse. DPS is characterized by animals having an initial stress exposure, a brief episode of trying to escape, followed by becoming motionless and in cardiac arrest. These cardiac arrests are typically bradyasystolic arrests. Animals that experienced CSS or DPS were found to have elevated liver enzymes and creatinine kinase circulating in their blood. A summary of clinical and laboratory findings can be seen below:¹⁶

	Capture myopathy	
	CSS	DPS
Timespan	Hours	Minutes
Heart rate just before death	Tachycardia	Ventricular fibrillation
Blood pressure	Hypotension	–
Breathing	Fast Shallow	–
Pulse	Weak	–
Temperature	Hyperthermia	
Sweat	Diaphoresis	
Catecholamine	High serum level	
Creatinine kinases	High Some with Rhabdomyolysis	
Dopamine	–	
Damage on cardiac muscle tissue	Multiple in CSS, not DPS CBN near cardiac autonomic nerve endings in animal stress testing	
Behavior	Extreme activity - Screaming - Seemingly immune to pain Later still	

An explosive autonomic system (seen in faster animals who can accelerate quickly and larger brains) was found to be a risk factor for stress cardiomyopathy. Translating this information to humans, repeated sympathomimetic use certainly upregulates the autonomic nervous system.

Sudden cardiac death (SCD) is well documented, particularly in males undergoing

psychological stress. In a study in 2015, autopsies of young (<36 years of age) males who experienced SCD showed that 60% of these individuals had morphologically normal hearts¹⁷. 31% of deaths in this study were in the setting of physical restraint. **Stress cardiomyopathy cannot be ruled out as a cause or contributor to JL's death.**

WAS THERE A DELAY IN EMERGENCY MEDICAL CARE RENDERED?

JL was sitting on his own, awake, and breathing at video marker 00:10. He was in the process of being handcuffed at 00:11. SOAS [Southern Oklahoma Ambulance Service] was summoned at video marker 00:12:15. At 00:14, JL is still breathing. At 00:15:45, JL appears to be slumping over. At 00:16:23, EMS is told to "step it up." A sternal rub is performed at video marker 00:16:50. Narcan is administered at 00:17:23. At video marker 00:21, chest compressions are underway prior to arrival of Southern Oklahoma Ambulance Service (SOAS).

According to SOAS response records:

Response Times and Mileage		
Incident Number: 20190705127	PSAP: 07/05/2019	Start Odom: 0
59	00:14:00	
Call Sign: 88	Disp. Notified: 07/05/2019	Scene Odom: 3.3
	00:14:00	
Veh. #: 88	Unit Disp.: 07/05/2019	Dest. Odom: 11.4
	00:14:00	
	Enroute: 07/05/2019	
	00:18:00	
	At Scene: 07/05/2019	To Scene: 3.3
	00:22:00	
	At Patient: 07/05/2019	To Dest: 8.1
	00:23:00	
	Depart Scene: 07/05/2019	
	00:43:00	
	Arrive Dest.: 07/05/2019	
	00:53:00	
	Dest. Transfer of 07/05/2019	
	Care: 00:53:00	
	Unit Back in Service: 07/05/2019	
	01:10:00	

EMS was dispatched, en route, and at the patient within 9 minutes which is a reasonable response time. The fact that EMS achieved ROSC at all [return of spontaneous circulation] underscores that expeditious emergency medical care was rendered.

WOULD MORE EXPEDITIOUS MEDICAL CARE AFFECTED JL'S OUTCOME?

As described in the ACEP white paper, Dr. Luther Bell, the primary psychiatrist for the McLean Asylum for the Insane in Massachusetts, described a clinical condition known as Bell's Mania that carried a high mortality rate. Based on the clinical features and outcomes of the institutionalized cases from the 1800s, when compared to the presently accepted criteria known to accompany ExDS, it may well be the case that

Bell's Mania is related to the syndrome of ExDS that we witness today. The mortality rate of Bell's Mania was 75 percent.¹

Takeuchi et al. stated:

*Since ExDS victims frequently die while being restrained or in the custody of law enforcement, there has been speculation over the years of police brutality being the underlying cause. However, it is important to note that the vast majority of deaths occur suddenly prior to capture, in the emergency department (ED), or unwitnessed at home.*¹⁸

According to Takeuchi et al., Stratton et al., and Wetli et al.:

*Approximately two thirds of ExDS victims die at the scene or during transport by paramedics or police.*¹⁹ *Victims who do not immediately come to police attention are often found dead in the bathroom surrounded by wet towels and/or clothing and empty ice trays, apparently succumbing during failed attempts to rapidly cool down.*^{18,19,20}
The few who live long enough to be hospitalized often succumb to disseminated intravascular coagulation, rhabdomyolysis and renal failure.¹⁹

DL Ross stated:

*More than 75 percent of patients with ExDS die at the scene or during initial transportation.*²¹

Vilke et al. stated:

*"Many ExDS deaths are not preventable".*²²

Strote et al. stated:

*"The rarity of restraint-related death has precluded good incidence estimates, but ExDS is commonly described as a 'medical emergency', with mortality estimates ranging from 8% to as high as 66% of cases."*²³

Finally, the ACEP ExDS task force reviewed all medical literature available at the time the position paper was written. This position paper not only describes the fact that aggressive resuscitation is often unsuccessful in the setting of ExDS, but so far as to list it as a feature of the ExDS based on 5 prior articles in the medical literature.¹

According to evidence-based medicine, it is unlikely that JL would have

experienced a better outcome even if emergency medical care had been rendered sooner.

OPINIONS:

- 1. Cardiac arrest from a STEMI cannot be ruled out as a proximate cause of JL's sudden death.**
- 2. Sympathomimetic intoxication from a novel psychoactive substance or an uncommon hallucinogenic substance cannot be ruled out as a proximate cause of JL's behavior and cardiac arrest on 7/4/2019.**
- 3. Cardiac hypertrophy, coronary artery disease, intoxication, stress cardiomyopathy and prolonged exertion may have contributed to JL's death.**
- 4. JL displayed many features consistent with ExDS and is likely the cause of his cardiac arrest on 7/4/2019.**
- 5. JL did not die from traumatic causes due to supposed excessive use of force by the police officers on 7/4/2019.**
- 6. JL did not die from CEW use.**
- 7. JL did not die from mechanical, positional, postural, traumatic, or restraint asphyxia.**
- 8. Officers at the scene rendered appropriate first aid while awaiting EMS to arrive.**
- 9. EMS was dispatched, en route, and at the patient within 9 minutes which is a reasonable response time. The fact that EMS achieved ROSC at all [return of spontaneous circulation] underscores that expeditious emergency medical care was rendered.**
- 10. According to evidence-based medicine, it is unlikely that JL would have experienced a better outcome even if emergency medical care had been rendered even sooner.**

The opinions reached in this report are based on my education, training, and experience. These conclusions are all within reasonable medical certainty and/or probability. I reserve the right to amend this report should further information become available.

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FEE SCHEDULE

- A one-time \$500.00 administrative fee is required to open a file.
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- I may choose a medical toxicology fellow or emergency medicine resident to assist with literature searches, literature reviews, or case timelines in a report. These services are billed at \$450/hour.
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Phi Lambda Upsilon, Chemistry National Honor Society, 1994
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Charles B. Peterson Premedical Scholarship for Chemistry Majors, 1993, 1994
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Alpha Lambda Delta—SMU 3.5 Honor Society, 1991-1995
National Dean's List, 1991, 1992, 1993
Semifinalist, Westinghouse Science Talent Search, 1991
Sigma Xi Research Award, 42nd International Science and Engineering Fair, 1991
Sigma Delta Epsilon—Honor for Women in Science, 1991
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Army, Navy, Air Force, Marine Corps Science Awards, 1988-1991
United States Science Camp, representing the State of Georgia, 1991

Medical Expert Witness

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United States of America v. Leonus Stevenson Peterson, et al. United States Attorney's Office Eastern District of Virginia. (Prosecution). Evidentiary hearing for sentencing testimony, AUSA Olivia Emerson; Richmond, Virginia, October 19, 2020.

United States of America vs. Jawayne Watkins. United States Attorney's Office Western District of New York. (Prosecution). Trial testimony, AUSA Michael Adler; Buffalo, New York, October 15, 2020.

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United States of America vs. Michael Jones. United States Attorney's Office, Southern District of New York. (Prosecution). Trial testimony, AUSA Daniel Wolf; New York, New York, October 17-18, 2019.

United States of America vs. Gas Pipe, Inc. United States Attorney's Office, Northern District of Texas. (Prosecution). Sentencing hearing testimony, AUSA Chad Meacham: Dallas, Texas, August 28, 2019.

United States of America vs. Aaron Michael Shamo. United States Attorney's Office, District of Utah. (Prosecution). Trial testimony, AUSA Michael Gadd: Salt Lake City, Utah, August 21, 2019.

United States of America vs. Christopher Tyler. United States Attorney's Office, Southern District of West Virginia. (Prosecution). Sentencing hearing testimony, AUSA Monica Coleman: Charleston, West Virginia, August 6, 2019.

United States of America vs. Bernard Shelton. United States Attorney's Office, Eastern District of Michigan. (Prosecution). Trial testimony, AUSA Michael Heesters; Detroit, Michigan, July 15, 2019; March 10, 2020.

United States of America vs. Max Gaffney. United States Attorney's Office, Southern District of California. (Prosecution). Trial testimony, AUSA Lawrence Casper; San Diego, California, June 21, 2019.

GULSTAN E. SILVA, JR., as Personal Representative of the Estate of Sheldon Paul Haleck; JESSICA Y. HALECK, Individually As Guardian Ad Litem of DEPARTMENT RECORDS; ORDERJEREMIAH M.V. HALECK; WILLAM E. HALECK; and VERDELL B. HALECK, Plaintiffs, Vs. CITY AND COUNTY OF HONOLULU; DONNA Y.L. LEONG, Individually and in her Official Capacity; LOUIS M. KEALOHA, Individually and in his Official Capacity; CHRISTOPHER CHUNG; SAMANTHA CRITCHLOW; STEPHEN KARDASH; CHAD SANO; REYNWOOD MAKISHI; FRANK POJSL; and JOHN and/or JANE DOES 1-10, Defendants. CIVIL NO. 15-00436 HG-KJM; Honolulu, Hawaii (Defense). Trial testimony, Corporate Counsel Traci Morita; Honolulu, Hawaii, May 30, 2019.

United States of America vs. Dr. Joel Smithers. United States Attorney's Office, Western District of Virginia. (Prosecution). Trial testimony, AUSA Cagle Juhan; Abingdon, Virginia, May 3, 2019.

United States of America vs. Dr. Muhammed Samer Nasher-Alneam. United States Attorney's Office, District of West Virginia. (Prosecution) Trial testimony, AUSA

Haley Bunn; Charleston, West Virginia, April 26, 2019.

United States of America vs. James H. Blume, Jr. DO; Mark T. Radcliffe; Joshua Radcliffe; Michael T. Moran, MD; Sanjay Mehta, DO; Brian Gullett, DO; Vernon Stanley, MD; Mark Clarkson, DO; William Earley, DO; Paul W. Burke, Jr., MD; Roswell Tempest Lowry, MD. United States Attorney's Office, Southern District of West Virginia. (Prosecution).

LUKE SMITH, Deceased, through his Successor in Interest, IAN SMITH, individually and as successor in interest for LUKE SMITH, Deceased, Plaintiff, vs. COUNTY OF SANTA CRUZ, a public entity, SANTA CRUZ COUNTY SHERIFF JAMES HART, SANTA CRUZ COUNTY SHERIFF'S SERGEANT JACOB AINSWORTH, DEPUTY CHRIS VIGIL, DEPUTY JEFFREY EISNER, and DEPUTY EMMA RAMPONI; CITY OF CAPITOLA, a public entity, CAPITOLA POLICE OFFICER PEDRO ZAMORA; CITY OF WATSONVILLE, a public entity, WATSONVILLE POLICE OFFICER NOE HERNANDEZ, and LUKE SMITH, Deceased, through his Successor in Interest, IAN SMITH, individually and as successor in interest for LUKE SMITH, Deceased, No: 5:17-cv-05095-LHK. (Defense). Deposition, Oakland, California; February 27, 2019.

United States of America vs. Sergio Martinez et al. 18-cr-00033-JL. United States Attorney's Office, District of New Hampshire. (Prosecution)

United States v. Anthony Marion and Lauren Martinez, case number 4:17 CR 549 JAR (EDMO). United States Attorney's Office, Eastern District of Missouri. (Prosecution)

United States of America vs. Dr. Pamwar Jain. United States Attorney's Office, District of New Mexico. Sentencing hearing, Las Cruces, New Mexico; November 20, 2018. (Prosecution)

United States of America vs. Curry. United States Attorney's Office, Eastern District of Virginia. (Prosecution)

DEANA JO BRIESCH, INDIVIDUALLY AND AS INDEPDENDENT ADMINISTRATOR OF THE ESTATE OF TIMOTHY JOHN BRIESCH, DECEASED, AND AS NEXT FRIEND FOR AUSTIN JORDAN BRIESCH, A MINOR, AND ALLYSON MEAGON BRIESCH VS. AIR EVAC EMS, INC. DBA AIR EVAC LIFETEAM AND/OR TEXAS LIFESTAR, LAURA A. AINSWORTH, RN, JOHN D. PLUSNICK, EMT-P, BRIAN S. PRICE, MD AND

EMERGENCY SERVICES PARTNERS, LP. (Plaintiffs)

Rebecca Potter, Individually and as Next Friend of Austyn Vasquez, a minor, and Richard Potter, Plaintiffs v. HP Texas1 LLC d/b/a HPA TX LLC, OPVHHJV LLC d/b/a Pathlight Property Management, and SER Texas LLC d/b/a Hyperion Homes Texas LLC, Defendants. In the District Court of Rockwall County, Texas, 382nd Judicial District. (Defense)

United States of America vs. Dr. Shouping Li. FBI Nevada, Las Vegas Division.

United States of America vs. Bryan Byrd. United States Attorney's Office, District of Alabama. (Prosecution)

United States of America vs. Cole Gipson. United States Attorney's Office, Western District of Missouri. (Prosecution)

United States of America vs. Jawayne Watkins. United States Attorney's Office, Western District of New York. (Prosecution)

United States of America vs. Dr. David Morgan. United States Attorney's Office, District of West Virginia. (Prosecution)

Cause No. C2017133; Tina L. Johnson v. Jeffrey Scott Smith, MD; in the 355th District Court, Hood County, Texas. (Defense)

United States of America vs. Jenny Letson. United States Attorney's Office, District of Alabama. (Prosecution)

Richard M. Ogburn vs Rameshwaram, LLC d/b/a Best Western Burleson Inn and Suites; In the District Court 18th Judicial District, Johnson County, Texas. Deposition, November 30, 2018. (Defense)

Kootenai County District Attorney's Office; Grand Jury Testimony regarding Varsel Jarnagin (Prosecution); Coeur d'Alene, ID; November 7, 2018.

United States of America vs. Holly Kaszuba. United States Attorney's Office, Middle District of Pennsylvania. (Prosecution) Trial testimony, AUSA Michelle Olshefski; Scranton, PA; November 5, 2018.

Hector Alvarado v. Independent Bar Austin, LLC, d/b/a Barbarella; and Elizabeth Elliot; In the 126th Judicial District, Travis County, Texas. (Defense)

SHELLY D. PARHAM, individually, and VICTOR HINES III, as independent administrator of, and on behalf of, the ESTATE OF MARCUS JOHNSON, Plaintiffs, vs. CITY OF BURKBURNETT; DANIEL C. ELBAUM; MATTHEW C. MCDONALD; and ZACHARY D. LEONARD, Defendants. CIVIL ACTION NO. 7:17-CV-00036-M. (Defense)

Rosemary Iberra, Individually, and as Representative of the Estate of Jessica Morales Leija, and as Next Friend to CS, ES, LS, and NS, Minor Children, and Raul Leija, Individually vs. Toyota Motor Corporation. (Plaintiff)

United States of America vs. Jubentino Soto, et. al. United States Attorney's Office, Eastern District of Washington. (Prosecution)

United States of America vs. Corey Bernard Green. United States Attorney's Office, Southern District of California. (Prosecution)

United States of America vs. Jonathan Barrett; Joedon Bradley; and Johnny Williams. United States Attorney's Office, Middle District of Tennessee. (Prosecution) Trial testimony, AUSA Amanda Klopff; Nashville, TN; March 21, 2018.

State of Texas vs. Christopher Davis. Dallas County District Attorney's Office; (Prosecution); Trial Testimony, Assistant District Attorney Leighton D'Antoni; Dallas, TX; January 11, 2018

Penny Herzog, Individually and as Representative of the Estate of David Lynn Herzog, Deceased vs. Jerome Lee Sang, MD, PA, Jerome Lee Sang, MD, Mathew T. Alexander, MD, South Texas Brain and Spine Institute, PA, Bret Todd, DO, Christopher Luis Reyes Fernandez, MD, Gulf Shore Anesthesia Christus Spohn Health System Corporation. (Defense)

Deposition; Burford Ryburn; July 19, 2017

Trial testimony; Sinton, TX; December 11, 2017

Clark County District Attorney's Office; Grand Jury Testimony regarding Gregory Brent Dennis (Prosecution); Las Vegas, NV; September 13, 2017.

United States of America vs. Brian Wimsatt. United States Attorney's Office, Middle District of Tennessee. (Prosecution)

United States of America vs. Tatiana Johnson; Damien Anderson; and Leon

Anderson. United States Attorney's Office, Middle District of Tennessee.
(Prosecution)

State of Wisconsin vs. Mark Jensen (Defense)

United States of America vs. Eugene Gosy, MD; United States Attorney's Office,
Western District of New York (Prosecution)

United States of America vs. Edward Lee Poorman, Case No. 2:17cr00222-DB;
District of Utah (Prosecution)

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF FLORIDA
CASE NO.: 0:15-cv-62116-FAM; CALVIN REID and MAMIE REID, co-
Personal Representatives of the ESTATE OF CALVON ANDRE REID, Plaintiffs,
vs. CITY OF COCONUT CREEK, SGT. DAVID FREEMAN^[L]SGT. DARREN
KARP^[SEP]OFC. THOMAS EISENRING, and OFC. DANIEL RUSH, Defendant.
(Defense)

Case No. 15-cv-02241-L-WVG *THE ESTATE OF FRANCISCO MANUEL CESENA, by and
through its successor-in-interest, JONATHAN JOSE TRINIDAD CESENA; MANUEL
SALVADOR CESENA; TRINIDAD CESENA; FRANCISCO ARMANDO CESENA by and
through his guardian ad litem CORINA AVILA; JONATHAN JOSE TRINIDAD CESENA; and
LUCITANIA JULIANA, Plaintiffs, v. STEPHEN HUDSON; CLARENCE LABAK; BRADLEY
MARTIN; MICHAEL KUPIEC; NINA SIGNORELLO; JEFF SAVAGE; CARY RODRIGUEZ;
JAMES CARRAWAY; DELLANIRA MONROY; UNITED STATES OF AMERICA and DOES 2-
20, Defendants.* UNITED STATES DISTRICT COURT, THE SOUTHERN DISTRICT OF
CALIFORNIA. (Defense)

*Sandra Mata, as Heirs of the Estate of Rudy Ricardo Mata v. Pioneer
Pawn; Robert Furr, and Pamela Furr.* In the District Court of Tarrant County,
Texas, 17th Judicial District. (Defense)

Deposition, Thompson Coe Cousins and Irons; November 28, 2017

United States of America vs. Michael Kostenko, DO; Southern District of West
Virginia. (Prosecution)

United States of America vs. Kevin Campbell; United States Attorney's Office,
Western District of Washington. (Prosecution)

United States of America vs. Darius Jermaine Blakemore, Case No. 1:16-cr-23;
United States Attorney's Office, District of Eastern Tennessee. (Prosecution) Trial
testimony, AUSA Michael Porter and Scott Winne; Chattanooga, TN;
June 27, 2017

United States v. Robert G. Rand, et al., 3:16-CR-00029-MMD-WGC; United States Attorney's Office, District of Nevada. (Prosecution) Testimony, Sentencing Hearing, AUSA James Keller; Reno, NV; November 20, 2017

United States of America vs. Jeffrey Reynoso. United States Attorney's Office, District of Massachusetts. (Prosecution)

United States of America vs. Cassie Verastegui. United States Attorney's Office, Eastern District of Washington. (Prosecution)

United States of America vs. Dr. Shakeel Kahn. United States Attorney's Office, District of Wyoming. (Prosecution)

Sok Kong, Trustee for the Next-of-Kin of Map Kong, Decedent vs. City of Burnsville, Minnesota and Maksim Yakovlev, in his individual and official capacity, John Mott, in his individual and official capacity, and Taylor Jacobs, in his individual and official capacity. Court File No: 16-CV-03634

Vicky Waggoner vs. General Motors. Civil Action No. 7:16-cv-00021-O.

Cheri Hanson, as trustee of next of kin of Andrew Derek Layton v. Daniel Best, Audrey Burgess, Craig Frericks, Kyley Groby, Matthew Huettl and Kenneth Baker, individually and acting in their individual capacities as City of Mankato Department of Public Safety Police Officers; The City of Mankato; Gold Cross Ambulance, Michael Jason Burt, and Thomas John Drews. File: 39416 (872). (Defense)

David Antis and Donna Antis v. Atmos Energy Corporation; Cause No. 38587 in the 82nd Judicial District Court of Falls County, Texas. (Defense)

Lisamarie Antonicelli, Plaintiff v. Trinity Industries, Inc.; Trinity Highway Products, LLC, Defendants. (Defense)

Bonny Edward Taylor, as the Personal Representative and Administrator of the Estate of Almus Reed Taylor, Plaintiff v. Henry P. Hughes, et al., Defendants. Civil Action No. 2:14-cv-1163-WKW-WC; In the United States District Court for the Middle District of Alabama, Northern Division. (Defense)

United States of America vs. Rodrigus L. Pearson; Case No. 2:16-cr-00239-MHH-HGD; United States Attorney's Office, Northern District of Alabama.
(Prosecution)

Cleo Patricia Shelby v. Joe Conway and Patrick White; In the District Court of Bowie County, Texas; Cause No. 15C0583-202. (Defense)

United States of America vs. Zachery Scott Kerns, United States Attorney's Office, Eastern District of Oklahoma. (Prosecution)

United States of America vs. Rosendo Flores Angulo and Curtis Hutchinson, United States Attorney's Office, District of New Mexico. (Prosecution)

United States of America vs. Trey Rath, case number 3:16-cr-40, United States Attorney's Office, Eastern District of Tennessee. (Prosecution)

United States of America vs. David Bollinger, 4:16 CR 0030 CEJ (EDMO), United States Attorney's Office, Eastern District of Missouri. (Prosecution)
Testimony, Sentencing Hearing, AUSA Sirena Wissler; March 21, 2017;
St. Louis, Missouri.

GLADIS CALLWOOD, as Administratrix of the Estate of KHARI NEVILLE ILLIDGE, Plaintiff, v. PHENIX CITY, ALABAMA a municipal corporation; JAY JONES, individually, CHARLES W. JENKINS, JR., individually; STEVEN M. MILLS, individually; RAY SMITH, individually; JOEY WILLIAMS, individually; DAVID BUTLER, individually; SHAWN SHEELY, individually; and RAYMOND J. SMITH, individually, Defendants. CIVIL ACTION No. 2:15-CV-182-WHA.
(Defense)

Leslie Urso, et al vs. Robertson County Veterinary Services, P.C., et al. (Defense)
Testimony against expert witness, Daubert Hearing; July 17, 2017

Richard A. Dotterer v. Thomas Pinto, Rebecca Saborsky, Douglas F. Kish, Kim Moyer, Bourough of Catasauqua, Borough of North Catasauqua
(Defense)

American College of Medical Toxicology Forensic Opioid Interpretation Guideline Panel, 2012-2013

Toxicology expert designation for TASER International pertaining to the Mr. Jordan Begley Inquest, Her Majesty's Senior Coroner, Manchester, United Kingdom.

United State of America vs. Robert C. Osborne, MD, United States Attorney's Office, District of New Mexico. (Prosecution)

Sara Hollandsworth v. James F. Lilly, MD, Naina Wasan, PA, Amy Davis RN, Linda Gosselin, RN, Hospital Corporation of America d/b/a Medical Center of Lewisville, HCA Holdings, Inc., d/b/a Medical Center of Lewisville, and Healthrust, Inc.—The Hospital Company d/b/a Medical Center of Lewisville. Cause No. DC-14-02803; 192nd District Court, Dallas County, Texas. (Defense)
Deposition
Firm: Schell Cooley LLP

No. 9:14-CV-150-KFG; *John DiSalvatore, et al. v. Foretravel, Inc. d/b/a Foretravel Motorcoach*; In the United States District Court for the Eastern District of Texas, Lufkin Division. (Defense)

C.S. Slade, Sr., Individually, Dorothy Slade, Individually, Kim Spearman, as next friend of M.S., a Minor, Coren Slade-Bell, as next friend of C.K., J., a Minor, Coren Slade-Bell, Individually, Tanisha Slde, Individually and Heirs of Marcus Dewayne Slade vs. City of Marshall, Texas, Former Police Chief Stanley Spence; John Johnston; Cortney Wells, and Stacey Roach. (Defense)
Deposition
Firm: Boon, Shaver, Echols, Coleman & Goolsby

Betty Madewell, vs. Gregg County. Civil Action No. 2:13CV581-RSP; In the United States District Court for the Eastern District of Texas, Marshall Division.

Shirley L. Miller, Individually and as Administrator of the Estate of Eugene Allen, Plaintiff v. Taser International, Inc., and State of Delaware, Defendants (Defense)

State of Texas vs. Dr. Ana Gonzalez-Angulo (Prosecution)
Trial: Harris County Criminal Justice Center

Kathleen Minneman vs. John's Place in the 80th District Court, Harris County, Texas. (Defense)
Deposition
Firm: Sheiness, Glover, and Grossman

Case 5:13-cv-00735-R. *Charlotte Tsosie vs. United States of America*; In the United States District Court for the Western District of Oklahoma (Defense)

No. 2014-03-0215; *Paul Lewis Belyeu vs. James E. Campbell and Billy Jo Davis*; In the District Court of Cherokee County, Texas, 2nd Judicial District. (Defense)

No. 2013C-0794; *Robert Magee, et al v. Farmer's Texas Country Mutual Insurance Company*; In the 3rd District Court of Henderson County, Texas. (Defense)

Trial testimony

Firm: Farmer's Texas Country Mutual Insurance Company

Cause No. 2013-33309; Ingrid Bender and Tim Bender, Individually and as Next Friend of Andrew Bender vs. Houston Northwest Medical Center, Houston Northwest Medical Center, Inc., Houston Northwest Medical Operating Partners, Ltd., Houston Northwest Operating Partners, LLC, Cesario A. Castillo, M.D., Woodrow V. Dolino, M.D., Renee Madden, N.P. and Summerwood Family Clinic; In the 125th Judicial District Court of Harris County, Texas. (Plaintiff)

Deposition

Firm: Davis and Davis

Darla Plunkett Riley vs. Isaac Grate, Jr., MD In the 269th District Court of Harris County, Texas, 269th Judicial District. (Plaintiff)

Deposition

Firm: Davis and Davis

Tammie Chapman v. DCR Beverages, LLC, Doing Business As Smashburger, DC Rightside, LLC, DCR Concessions, LLC and DCR Hospitality, LLC In the 101st Judicial District of Dallas County, Texas. (Defense)

Cause No. 2012-502124; Gary Williams, Individually and on Behalf of the Estate of Justin Kurt Williams, Deceased v. Vicki Buxkemper, CFNP; In the 237th District Court of Lubbock County, Texas. (Defense)

Guillermo Hurtado, As Next Friend to Jesus Hurtado-Garcia, An Incapacitated Adult vs. CVS Pharmacy Inc., et al. (Plaintiff)

Darron Q. Watson and Kenyatta Sapp, Individually as the natural Parents of Darron Z. Watson, deceased, and Kenyatta Sapp as the Administratrix of the

Estate of Darron Watson, deceased, v. Northlake Pediatric Associates, P.C. and Raymond Rosenberg, M.D. (Plaintiff)

Deposition

Firm: Cochran, Cherry, Givens, Smith, Sistrunk and Sams

Debora Cherry v. Efficient Attic Systems, L.P; Cause No. 11-09147; In the 101st Judicial District Court of Dallas County, Texas. (Defense)

Cause No. 2012-33100; Samuel C. Fischer v. Coaches Sports Bar and Grill Katy, Inc. and Coaches Sports Bar and Grill Humble; 215th District Court; Harris County, Texas. (Defense)

Deposition

Firm: Hermes Sargent Bates; Indemnity Insurance

Bianca Elliott Colgin, Individually and as Next Friend of Arden Louise Colgin, a Minor vs. Remington Arms Company, LLC, Sporting Goods Properties, Inc., Robert M. Farrell, Robert M. Farrell, LLC, Robert M. Farrell Development, LTD., Robert M. Farrell Family Partnership #1, LTD., Robert M. Farrell Family Partnership #2, LTD., and North Rio Vista, LTD. (Plaintiff)

Cause No. CC-12-04068-A. Emilia Hernandez vs. Tam and Tam International d/b/a Tam's Chinese Restaurant; In the County Court at Law No. 1 of Dallas County, Texas. Your File No. 1132001 (Defense)

Jeffrey Herron, Amy Herron, Individually and as Next Friend of Jeffrey Herron (His Guardian), William Herron, a Minor and Abigail Herron, a Minor v. BRC Aledo Properties, LLC d/b/a Railhead Smokehouse, Aledo Bearcat Properties, LLC, Burton Parnell, Randy Myers, and Michelle Terry; and Todd Jarvis, Third Party Defendant (Defense)

Janie Edwards, individually and as heir to and representative of the estate of Vernell Edwards, deceased v. CVS Pharmacy, Individually and d/b/a CVS Pharmacy, Store #7664, CVS Rx Services, Inc. CaremarkPCS Health, LLC d/b/a CVSCaremark and General Peay, Pharmacist (Plaintiff)

Alisa McClure, Individually and as Representative of the Estate of Brian McClure; Betty Jean Grubbs; and Sherry Lynn Barr McClure as Next Friend of Hunter Lee McClure and Morgan Leann McClure, minors, vs. Watson Pharmaceuticals, Inc.; Watson Laboratories, Inc, a Nevada Corporation; Watson Laboratories, Inc., a Delaware Corporation; Watson Pharma, Inc.; Alza Corporation; Johnson &

Johnson; Novartis Pharmaceutical Corporation; Novartis AG; Sandoz, Inc.; Sandoz Pharmaceuticals Corporation; Mylan, Inc.; Mylan Pharmaceuticals, Inc.; Mylan Technologies, Inc.; Columbia Medical Center of McKinney Subsidiary d/b/a Medical Center of McKinney; Columbia North Texas Subsidiary, GP, L.L.C.; Scott DeVilleneuve, MD; E. Ragnar Peterson, MD; Sant, P.L.L.C., d/b/a Surgical Associates of North Texas, and Jolene L. Hammons (Defense)

Cause No. CC-11-02914-D in Dallas Co. Court at Law No. 4; *Lynanne Rannebarger v. Gilardo Gonzalez, Southwestern Motor Transport, Inc. and Derrick Percell Britt v. Virginia Adkins, Individually, on behalf of the Estate of Ladarius Adkins, and on behalf of all wrongful death beneficiaries of the Estate of Ladarius Adkins (Defense)*

Deposition

Firm: Strasburger & Price; Mark Scudder

Cause No. 2011-CO-07975; in the 57th Judicial District Court, Bexar County; *Maria Garza, Individually and on behalf of the Estate of Leoncio Antonio Garza v. Sea Island-II0, Ltd. (Defense)*

Cause No. 09-15340 *David Dawson v. Fluor Intercontinental, Inc. and Watkinson, LLC Managing Contractors a/k/a Watkinson LLC*; in the District Court Dallas, County, Texas 134th Judicial District (Plaintiff)

United States of America v. Dewey Mackay; United States District Court for the District of Utah (Prosecution); Trial testimony

United States of America v. Jaret Bush (Prosecution)

Cause No. 2010-80-C; *Kathy Mangum Jones, For and on behalf of the wrongful death beneficiaries of Joseph W. Jones, deceased vs. Brandon HMA., Inc. D/B/A Rankin Medical Center, Brandon HMA, Inc. D/B/A Rankin Medical n/k/a Brandon HMA, LLC, Dr. James Jefferson, Dr. Kurt Johnson, Dr. Michael Albert, and John Does 1-10 (Plaintiff)*

Cause No. 17004; *Dana Running as next friend of Jeffrey Peck and Jonathan Peck, Minors v. Joshua Shane Murphy and Nash Builders, Limited* in the 424th Judicial District Court of Llano County, Texas (Plaintiff)

Deposition and Trial testimony

Firm: The Law Offices of Price Ainsworth; Price Ainsworth

Cause No. 366-00795-2010; *John Michael Mock, et al. v. Presbyterian Hospital of Plano, et al.*; in the 366th District Court, Collin County, Texas (Defense)

Trial testimony

Firm: McCue Pauley

Tom McEnnis and Patti Plymate-McEnnis vs. State Farm County Mutual Insurance Company of Texas; In the District Court Williamson County, Texas, 26th Judicial District (Defense)

No. 2009-48-4. *Stephen Mark Hurley vs. Freeman Center*; In the District Court McLennan County, Texas 170th Judicial District (Defense)

Cause No. 09-15795; *Julie Schwartz v. Michael H. Brophy, MD* (Defense)

JWA No. 589-A-2010; *Ricky Guzman, Claimant v. Forged Components, Inc., Respondent* (Defense)

Cause No: 2247; In Re: Estate of Frank O'Neil, Deceased; In the Constitutional County Court of Kimble County, Texas (Defense)

Deposition

Firm: Gordon Reese; Bob Bragalone

Jamarcus Edwards vs. Progressive casualty Insurance Company, et al. Parish of DeSoto, 42nd JDC No. 66,954. (Plaintiff)

Deposition

Firm: Silbert and Garon (New Orleans, LA); Scott Silbert

Boyce Gainey, as Guardian and Representative of the Estate of Justin Gainey, Non Compos Mentos, vs. Lift-All Company, Inc., Rigging Supply Company and Industrial Mill and Maintenance Supply, Inc. (Plaintiff)

Deposition: Montes Law Group; Rachel Montes

Trial: The Tracy Firm; Todd Tracy

Bonnylen Catlett v. Duncanville Independent School District; Civil Action No. 3:09-CV-01245-K pending in the U.S. District Court for the Northern District of Texas, Dallas Division (Defense)

John Kirtley, III, Individually and as Independent Administrator of the Estate of John Kirtley, Jr. Deceased vs. Gulf States LTAC of Dallas, etc. Cause No. 09-08471-F; Client/Matter No.: 0100-00042 (Defense)

Manual Marquez, on behalf of the Estate of Terry Bailey, Manual Marquez father, Mary Lous Williams mother and Damian Bailey and Macy Bailey and Tia Bailey individually and Lana Martinez individually and as next friend of Macy Bailey, a minor vs. S.C. Johnson and Son, Inc., and John Forte (Defense)

State of Texas vs. Robert Willard Lenox (Defense)
Trial: Public Defender Sherman, Texas

No. 23,265- *Becky Vanden Bosch, Individually and as Next Friend of Justin Maurice Evans, a Minor Child vs. Wilbarger General Hospital, et al.-in the 46th Judicial District of Wilbarger County, Texas (Defense)*
Trial: Schell Cooley; Tim Ryan

Kenneth Washington and Betty Washington, Individually and on Behalf of the Estate of Everett Washington vs. Methodist Health System, Dung Ngoc Huynh, and Demetria Carwile (Plaintiff)

Brenda F. Bowers vs. Gayle D. Bounds, D.O., Sheridan Express Pharmacy of Lawton; Case 5:08-cv-00476-m (Defense)

United States of America vs. Patricia Green; United States District Court for the District of New Mexico (Prosecution)
Trial

United States of America vs. Tiofila Santanilla United States District Court for the Western District of Texas (Prosecution)
Trial

Adcock vs. Baylor Medical Center at Trophy Club, et al. Cause No. 141-224238-07.(Defense)

Patricia Walters, Individually and as Next Friend of Austin Walters vs. Stephen Biondo, CVS Pharmacy Store #3200 and CVS Pharmacy Inc. Cause No. 296-01896-07 (Defense)

Brian Hurd et al. vs. Michael Preston Speight; Harold Speight; Hand Dallas Restaurant Inc. d/b/a Have a Nice Day Café and BNY Dallas, INC. d/b/a Tiki Bob's Cantina (Defense)

Leehah Fischer Cain vs. CVS Pharmacy et al.; In the District Court of Harris count, Texas, 80th Judicial District. (Defense)

Cause No. 06-07111-A; *Joseph Zheng vs. Wal-Mart Stores, Inc. and April Johnson* (Defense)

Deposition; Cowles and Thompson; Bevan Rhine

Mary Garcia, Individually and as Personal Representative of the Estate of Melany Avila, Deceased v. Golden Triangle Living Center, Inc., et al.; 58th Judicial District Court; Jefferson County, Texas; Cause No. A-175, 506 (Defense)

Craig and Susan Waltjer v. Holiday World of Houston, L.P. and Keystone RV Company; In the 189th District Court of Harris County, Texas; Cause No. 2004-47571 (Defense)

Cabrera v. Johnson et al.; In the 162nd Judicial District Court; Dallas County, Texas; Cause No. DC 0600223 (Defense)

Deposition and Trial; McCue Pauley; David McCue and Bruce Pauley

Mario Perea, Individually, and as Representative of the Estate of Jacob Perea, Deceased, et al. vs. Michael Rice, M.D., et al.; Cause No. 2005-533,287 (Defense)

Deposition and Trial; Schell Cooley; Tim Ryan

Norberto Ortiz, et al. vs. Columbia Medical Center of Las Colinas, Inc., et al. Cause No.: 05-10908-M; 298th Judicial District (Defense)

Deposition; McCue Pauley; David McCue and Bruce Pauley

Michael Martin et al. vs. KV Trucking, Inc., et al. Civil Action No. 4:04cv369. (Defense)

I have served as a consultant on numerous other cases.

Research Experience

SMU Undergraduate Research: “The Phenylation of Poly(methylphenylphosphazene)” Dr. Patty Wisian-Nielson, 1994

SMU Undergraduate Research: “The Preparation of S-Hexahydropyrene and 4-Bromopyrene”, Dr. Edward Biehl and Dr. Daniel Swartling, 1993

Pohl Cancer Research Laboratory, Georgia College, Milledgeville, GA: “Cellular

Spin Resonance”, Dr. Douglas G. Pohl, 1987-1991

Presentations

Speaker, Highland Park High School Science Festival, Dallas, TX, March 25, 2022

Panelist, American College of Medical Toxicology Symposium Agitation Panel (Virtual), April 13, 2021

Emergency Medicine Grand Rounds Presenter, “The Zombie Apocalypse: Cases Involving the Excited Delirium Syndrome; Florida Atlantic University (Virtual), April 20, 2021

Speaker, “The Emergency Department, Poisons, Drugs and Murder Mysteries”; Virtual Shadowing Session, February 23, 2021.

Speaker, “Stories from the ‘Front Line’ of Medicine and Medical Toxicology”; Highland Park High School Science Festival, Dallas, TX, February 1, 2021

Organizer and speaker, ACMT Seminar in Forensic Toxicology; Criminal Poisoning and Drug-Facilitated Sexual Assault: Forensic, Legal and Medical Aspects, Washington DC, December 9-10, 2019

Speaker, Opioid Multidistrict Litigation Conference, Dallas, TX, June 6, 2019

Speaker, “The Emergency Department, Poisons, Drugs, and Murder Mysteries”; Highland Park High School Science Festival, Dallas, TX, January 31, 2019

Organizer and speaker, ACMT Seminar in Forensic Toxicology; Opioids, Toxicology, and the Law: Medical-Legal Aspects of the Opioid Epidemic, Dallas, TX, December 13-14, 2018

Speaker, “Perspective on Drug Users’ Death and Dealer Culpability”; ACMT Seminar in Forensic Toxicology; Opioids, Toxicology, and the Law: Medical-Legal Aspects of the Opioid Epidemic, Dallas, TX, December 14, 2018

Billington ME, **Hail S.** Crushing Counterfeits: Deaths Due to Illicit and Inadvertent Use of Potent Opioid Analogues. North American Congress of Clinical Toxicology, Chicago, IL. November 26-29, 2018.

Meadors KB, Hail S, Kleinschmidt K, Cao J. Chasing the Dragon with Fentanyl Patch Gel. North American Congress of Clinical Toxicology, Chicago, IL. November 26, 29, 2018,

Speaker, “The Opioid Epidemic: Stories from the “Other” Front Line.” EMC of TEAMHealth 10th Annual Women in Emergency Medicine Conference; September 21, 2018.

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Speaker, “Drug Overdose Causation: How Did They Die, How Do You Prove It, and Why Your Civil Case is A Crime Scene”; State Bar of Texas, Advanced Medical Torts Course; San Antonio, Texas; March 9, 2018.

Keynote Speaker, “The Opioid Epidemic: Stories from the Front Line”; The Opioid Epidemic: A Wicked Problem of the Worst Kind Conference by Avera Healthcare, United States Attorney’s Office, District of South Dakota; Sioux Falls, South Dakota; October 18, 2017.

Speaker, Police Use of Force in Today’s World, Miami-Dade Police Department; Miami, Florida; June 26, 2017.

Speaker, 2017 New Orleans Field Division (NOFD) Management Training; Kessler Air Force Base; Biloxi, Mississippi; June 20, 2017

Adjunct Instructor, Advanced Diversion Investigator Training, Drug Enforcement Administration Academy, Quantico, Virginia; June 14, 2017,

Speaker, 2017 Annual Conference of the Colorado Law Enforcement Coordinating Committee. “Opioid Epidemic: Medical Issues in Prosecutions.” Keystone, Colorado; April 18, 2017.

Speaker, North Carolina Opioid Reduction Alliance, Strategic Initiative, Heroin Overdose Conference; Charlotte, North Carolina; April 13, 2017.

Speaker, Alternative Careers in Medicine, Washington University via Skype, St. Louis, Missouri; February 7, 2017

Workshop Chair, Society of Forensic Toxicologists National Meeting; “The Medical Toxicology Detectives: From the Case Files of Parkland Hospital”, Dallas, Texas, October 17, 2016.

Southwest Association of Forensic Scientists, “The Zombie Apocalypse: Excited Delirium Syndrome, Designer Drugs, and TASERS”; Galveston, Texas, September 29, 2016.

Drug Enforcement Administration, New Orleans Field Division Management Conference; “Demystifying Toxicology”; Biloxi, Mississippi, September 21, 2016.

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Drug Enforcement Administration, Office of Diversion Control, Federal Pharmaceutical Drug Investigations and Prosecutions Training, “Demystifying Toxicology: What the Dead Can and Cannot Tell us”; Dallas, Texas, August 24, 2016.

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American Medical Association, Panelist, Physician Entrepreneurship: Transform the Future of Health Care; Austin, Texas, April 28, 2016.

University of Texas Southwestern Joint Conference on Agitation, Department of Emergency Medicine and Department of Psychiatry, “Excited Delirium Syndrome”; Dallas, Texas, January 28, 2016.

Organized Crime Drug Enforcement Task Forces, United States Department of Justice, “Demystifying Toxicology and ‘But For’ Causation; Atlanta, Georgia, November 19, 2015.

Southwest Association of Forensic Scientists, “Pick Your Poison”; Oklahoma City, Oklahoma, October 22, 2015.

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Parkland Health and Hospital System Police Department, “Poisons and Police”, Summer 2015

“TASER Tox”, TASER International Scientific Advisory Board; Scottsdale, Arizona, April 10, 2015.

“So You Think You Are An Expert”, Consultation in the Civil and Criminal Arenas, American College of Medical Toxicology, Baltimore, Maryland, November 12, 2013.

Mock Deposition, Consultation in the Civil and Criminal Arenas, American College of Medical Toxicology, Baltimore, Maryland, November 12, 2013

“Criminal Potpourri”, Consultation in the Civil and Criminal Arenas, American College of Medical Toxicology, Baltimore, Maryland, November 13, 2013

University of Texas Southwestern Medical Center, Toxicology Grand Rounds, “Continuous Intravenous Infusion of Physostigmine in Anticholinergic Delirium”, North Texas Poison Center, Dallas, Texas, August 7, 2012

“Toxicology”, University of Texas Southwestern School of Medicine, Sophomore Pharmacology, April 13, 2012

“Witches: Heretics or Early Drug Users”, Tarrant County Medical Examiner’s Office, Ft. Worth, Texas, October 2011

“Continuous Intravenous Infusion of Physostigmine in Anticholinergic Delirium”, Utah Poison Control Center, Salt Lake City, Utah, October 2011

“Forensic Files of Dr. Stacey Hail”, Georgia Poison Control Center, Atlanta, Georgia, October 2011

“Syndrome of Antidiuretic Hormone Complicating Pediatric Ingestion of Fluoxetine”, North American Congress of Clinical Toxicology, Washington D.C., September 2011

Keynote Speaker at the Southwest Association of Toxicologists, “Legal Highs—and Lows”, Austin, Texas, April 2011

Testimony; Texas House of Representatives, Committee on Criminal Jurisprudence, House Bill 1548 to add Methylenedioxypyrovalerone and Mephedrone to Penalty Group 2 of the Texas Controlled Substances Act, Austin, Texas, March 15, 2011

Southwest Association of Forensic Scientists, “The Case Files of Dr. Stacey Hail”, Grapevine, Texas, September 2010

Society for Academic Emergency Medicine, Clinical Pathologic Case Conference competition, Phoenix, Arizona, June 2010

University of Texas Southwestern Medical Center, Emergency Medicine Resident Conference, “Takotsubo Cardiomyopathy”, 2009

University of Texas Southwestern Medical Center, Toxicology Grand Rounds, “Xocolatl: A Treasure from Ancient Civilizations”, 2007-2010

University of Texas Southwestern Medical Center, Toxicology Grand Rounds, “Witches: Heretics or Early Drug Users”, 2005-2010

University of Texas Southwestern Medical Center, Emergency Medicine Resident Conference, Toxicology In-Service Review, 2005-2017

Toxicology Grand Rounds, “Mycotoxins and the Black Mold Controversy,” 2003
Instructor, Terrorism Response and Emergency Care Course, Texas Department of Health and Parkland Hospital, 2003

Children’s Medical Center Noon Conference, “Management of Acetaminophen and Salicylate Toxicity in Pediatric Patients”, May 2003

Certified Specialist of Poison Information Review Course, “Natural Toxins”, April 2003, 2004

Instructor, Advanced Disaster Life Support course, Secret Service Headquarters, “Chemical Agents II”, January 2003

American Association of University Women and Brookhaven College, “Expanding Your Horizons in Math and Science”, Keynote Speaker, October 2001

Toxicology, “Paraquat Poisoning”, October 2001

Emergency Medicine Resident’s Conference, “Keeping Pace with Cardiac Pacing in the Emergency Department”, June 2002

Emergency Medicine Resident’s Conference, “A Right Common Iliac Artery Mycotic Aneurysm”, May 2001

Emergency Medicine Resident’s Conference, “Petechiae and Purpura”, September 2000

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207th Annual American Chemical Society meeting, San Diego, CA, March 13-17, 1994

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“Toxicologists Warn Against Extreme Danger of Fentanyl”, interview with NBC 5 DFW Bianca Castro, October 27, 2016.

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